Comparison on Efficiency of Three Seaweeds (Caulerpa spp.) on Quality Improvement of Marine Fish Pond Effluent

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Abstract

Comparison on efficiency of seaweeds Caulerpa spp. on quality improvement of marine fish pond effluent was conducted from 25 February to 25 March 2006. Forty liters of the effluent was put into each plastic basin, for 3 treatments 3 replications and a control group. First, second and third treatment was put 40 g of seaweed, Caulerpa racemosa var. corynephora, C. lentillifera and C. sertularioides, respectively. Water quality of the effluent was observed before starting an experiment and after that, everyday for 6 days. The results showed that the efficiency for reducing ammonia, nitrite, nitrate, orthophosphate and total suspended solid of all three seaweeds were not significantly difference (P>0.05). Whereas the efficiency for reducing BOD5 were significantly difference (P<0.05). The growth rate (ADG) of seaweeds in the first and second treatment were significantly higher than in the third treatment (P<0.05) were 4.32 ± 1.03, 3.28 ± 0.31 and 1.83 ± 0.29 g/day, respectively.

Therefore, all 3 seaweeds could be used for improvement marine fish pond effluent.

Key words: Seaweed, Water quality improvement, Marine fish pond effluent

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